AMENDMENTS TO THE CLAIMS

38.(currently amended): An optical disc recording/retrieving apparatus comprising:

a motor for rotating disc, which has a spiral groove with wobble whose carrier frequency is constant in space frequency and is meandered according to a signal modulated with a constant carrier frequency f_{L0} and address information and also has a recording layer, at a constant angular velocity with a center of the disc being an axis of rotation, the disc having address information identifying each recording data block, which is a unit of recording information located at a specified position in the spiral groove, and a synchronization pattern identifying a head position of the recording data block;

an optical pick-up for generating a focused laser beam irradiating the disc for recording/retrieving;

linear motor for moving said optical pick-up radially of the disc to a given address;

a focus servo circuit for focusing the focused laser beam on the recording layer;

groove tracking servo circuit for scanning the spiral groove by the focused laser beam;

a detector and decoder circuit for detecting and decoding a carrier frequency f_{A0}, address information and block synchronization signal from the meandering groove geometry;

a data-sequence generation circuit for generating a recording data sequence, which is modulated in terms of mark length modulation, in synchronism with a data reference clock T which has a frequency f_{d0} and with a start position of the recording block;

a laser-power modulation circuit for modulating a recording laser power in accordance with the recording data sequence;

a reference signal generator for generating a data reference clock T which varies in reverse proportion to a radius position when the focused laser beam is moved radially of the disc to a given address of a recording data block; and

a data-sequence synchronization circuit for synchronizing a data sequence, which is to be written in the given recording block, with the start position of the recording block and also making a fine adjustment of r.p.m. (revolutions per minute) of the disc so as to satisfy a relation $f_{d0}=N\ f_{A0}$ at any radius position, by comparing in phase between a reference signal f_{R0}, which is obtained by dividing the frequency f_{d0} at a particular radius by N (N is an integer), and the carrier frequency f_{A0} which is detected at the given address from the meandering groove geometry.

39.(previously presented): An optical disc recording/retrieving apparatus according to claim 38, wherein the frequency f_{d0} of the reference clock T at a particular address is varied according to the radius so as to satisfy a relation:

$$f_{d0}=f_{ref}+(R-R_{ref})\ \Delta R$$

where f_{ref} is the frequency of a data reference clock T_{ref} at a reference radius R_{ref} of the head or tail of the recording area of the optical disc, ΔR is a radial width of the recording medium from an innermost periphery to an outermost periphery of the recording area, and R is a radius calculated from a given address at which object data is to be recorded.

40.(original): An optical disc recording/retrieving apparatus according to claim 38, wherein within a range in which r.p.m. of the disc is adjusted is within $\pm 0.01\omega_0$ with respect to a reference r.p.m. ω_0.

41.(previously presented): An optical disc recording/retrieving apparatus according to claim 38, wherein the carrier frequency f_{L0} of the groove geometry is 22.05 kHz, the address information is an ATIP (absolute time in pre-groove) signal whose frequency is modulated by ±1 kHz with the carrier frequency f_{L0}, and ω_0 is within a range of from 1900 to 2200 r.p.m.